

Application No.: 09/989965

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REMARKS

The Examiner is thanked for renumbering claims 69-92 as 71-94.

Claims 10 and 53 have been deleted to eliminate the objection to the drawings, the specification has been amended to improve the prose, and a number of the claims have been amended to eliminate issues under Section 112, second paragraph.

Claims 95-98 have been added to the application. Therefore, claims 1-9, 11-52, 54-56, 90-98 are pending in this application.

Claims 85-92 have been rejected under 35 USC § 102(b) as being anticipated by U.S. Patent 5,355,910 to Gies et al. (Gies). Applicants respectfully submit that this rejection cannot be sustained.

Claims 85-92 are not anticipated because Gies does not disclose an exhalation valve or an inhalation valve. Gies discloses a motor vehicle relief valve. Gies therefore does not anticipate applicants' invention under 35 USC § 102.

Claims 1-9, 13-35, 40-52, 56-78, and 83-84 have been rejected under 35 USC § 103(a) as being unpatentable over U.S. Patent 5,325,892 to Japuntich et al. (Japuntich) in view of Gies. Applicants respectfully submit that this rejection cannot be sustained for the following reasons.

Firstly, the record is devoid of any teaching or suggestion to combine the teachings of Japuntich with Gies. Japuntich describes an exhalation valve for a respirator, and Gies describes a relief valve for a motor vehicle passenger compartment. The Examiner explains that the suggested motivation for combining the Japuntich with Gies resides in Gies' stipulation of "such types of operative features [that] are in accord with and [are] more effectively/reliably obtainable by his reced valve structure (summary of the invention, note the recitations of enhanced seal characteristics, control flow and operation of the valve)." Applicants have reviewed Gies' summary of the invention and have discovered that Gies employs its rigid strip to prevent the valve flap 22 from warping or deforming during use (see Gies at column 1, lines 52-56). Although the problem of having a valve element warp or deform while in use may have been a problem in the art that pertains to pressure relief valves that are used in motor vehicle passenger compartments, the record is totally devoid of any evidence that such a problem exists, or has existed, in the art of exhalation and inhalation valves for filtering face masks. "The factual inquiry whether to combine references must be thorough and searching. It must be based on objective evidence of record. This precedent

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has been reinforced in myriad decisions, and cannot be dispensed with."<sup>1</sup> The Federal Circuit has explained at length in *In re Lee* that obviousness rejections based on combinations of references are improper when there is no evidence within the four corners of the record, to support the reasoning behind making the combination. Conclusory statements simply are not evidence.<sup>2</sup> Until sound evidence is made of record in the present case, the obviousness rejection based on Japuntich and Gies cannot be properly sustained.

Secondly, Gies cannot be applied as a reference in a Section 103 rejection because it resides in a nonanalogous art. The Examiner asserts, however, that the reference is analogous (along with Japuntich) "since they are from the same field of endeavor, respiratory arts." There is, however, no evidence that Gies is from the respiratory art. Gies discloses that his valve is in the field of relief valves for passenger vehicle compartments. This is not in the same field of endeavor as the Japuntich valve or applicants' valve, which valves reside in the field of exhalation valves for respiratory masks. Further, the record lacks any evidence that a person of ordinary skill would have looked to the art of pressure relief valves for motor vehicles to solve problems that are confronted by persons who design valves for respiratory masks. In addition, the purpose of applicants' valve is entirely different from the purpose of the Gies valve, and applicants' and Gies' valves both operate under entirely different conditions.

When the cited reference resides in a different field of endeavor and its disclosure is directed to a different purpose than the claimed invention, the reviewing courts have held that the reference resides in a nonanalogous art. The Examiner's attention is directed to *In re Clay*, 23 USPQ2d 1058, 1061 (Fed. Cir. 1992) where the Federal Circuit stated that the purpose of the cited technology needs to be compared to the purpose of the claimed invention:

<sup>1</sup> *In re Lee*, 61 USPQ 1431, 1433 (Fed. Cir. 2002).

<sup>2</sup> See *In re Lee*, 61 USPQ2d at 1434 ("With respect to Lee's application, neither the examiner nor the Board adequately supported the selection and combination of the Nortrup and Thunderchopper references to render obvious that which Lee described. The examiner's conclusory statements that "the demonstration mode is just a programmable feature which can be used in many different device[s] for providing automatic introduction by adding the proper programming software" and that "another motivation" would be that the automatic demonstration mode is user friendly and it functions as a tutorial" do not adequately address the issue of motivation to combine. The factual question of motivation is material to patentability, and could not be resolved on subjective belief and unknown authority."); see also *In re Dembiczak*, 50 USPQ 1614, 1617 (Fed. Cir. 1999) ("Broad conclusory statements regarding the teachings of multiple references, standing alone, are not 'evidence'").

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A reference is reasonably pertinent if, even though it may be in a different field from that of the inventor's endeavor, it is one which, because of the matter with which it deals, logically would have commended itself to an inventor's attention in considering his problem. **Thus, the purposes of both the invention and the prior art are important in determining whether the reference is reasonably pertinent to the problem the invention attempts to solve.** If a reference disclosure has the same purpose as the claimed invention, the reference relates to the same problem, and that fact supports use of that reference in an obviousness rejection. An inventor may well have been motivated to consider the reference when making his invention. **If it is directed to a different purpose, the inventor would accordingly have had less motivation or occasion to consider it (emphasis added).**

Applicants' valve has the purpose of providing a low pressure drop valve that remains closed under neutral conditions; whereas Gies' valve has the purpose of relieving pressure from the interior of a motor vehicle compartment. Further, applicants' valve operates in accordance with the cadence of a person's breathing while the Gies valve only operates when the door to the passenger compartment is closed.<sup>3</sup> In view of the different fields of endeavor, the different problems that mask designs tackle over the problems confronted by designers of motor vehicle relief valves, and the different purposes and conditions under which these valves operate, Gies cannot seriously be considered to reside in an art analogous to applicants' invention.

Thirdly, the Gies valve is not designed to address the features of the applicants' invention. The Gies valve relies on gravity to keep its valve closed. This valve would not be suitable for use in an exhalation valve because the flap would easily open when a wearer tilted their head downwards. A quick review of the Gies patent reveals that the rigid layer is isolated from the hinge — that is, it is not part of the hinge: it does not bend or flex when the valve opens. The rigid layer in Gies is only employed to prevent warping or deformation of the flap 22. As such there is no apparent prestress on the Gies flap; its valve therefore could allow contaminants to enter a face mask interior, if it were to be used for such a purpose.

<sup>3</sup> *In re Clay* also indicates that the operating conditions, under which the invention and prior art operate, should also be evaluated and when those conditions are different, it supports a finding that the reference is not analogous.

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For the above reasons, applicants' invention would not have been obvious to a person of ordinary skill under the terms of 35 USC § 103. Applicants accordingly urge the Patent Office to favorably reconsider the obviousness rejection and allow this application at an early date.

Respectfully submitted,

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Date

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